

REMARKS/ARGUMENTS

Rejection of Claims 1-13 under 35 U.S.C. 112

Claim 1-13 are rejected under 35 U.S.C 112, first paragraph, as failing to comply with the enablement requirement. According to the present specification, the purpose of the storage cell 212 is a capacitor. The reason is that there are two plates in the storage cell (see page 4 line 13-16.). And it is well known that a DRAM cell comprises at least one transistor and at least one capacitor. Therefore, the storage cell 212 is a capacitor.

Rejection of Claims 1-13 under 35 U.S.C. 103(a)

Claims 1-13, in so far as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Fig. 1 Prior Art, in view of Selcuk et al., 5,879,980, and Hiratsuka et al., 5,453,707. Applicant respectfully submits that such rejection is improper for the following reasons, and has also amended to claims as set forth herein in order to clarify the present invention.

The Examiner alleges that Selcuk et al. discloses in Fig. 1 the teaching of capacitors 40 and 42 connected in series between storage nodes 26 and nodes 28, and that it would have been obvious under 35 USC 103(a) to one of ordinary skill in the art at the time of the invention was made to serially connect a capacitor 40/42 in Fig. 1 of Selcuk et al., 5,879,980, between the output of inverter 13 and MOS capacitor 12 in Applicant's Fig. 1 Prior Art for the purpose of enhancing the capacitance to increase the stability and noise immunity of the memory cell.

However, Selcuk et al. only discloses a SRAM structure but not the claimed "memory pumping circuit". Moreover, according to the description in the prior art of the present invention, "A method to improve the conventional drawback is by

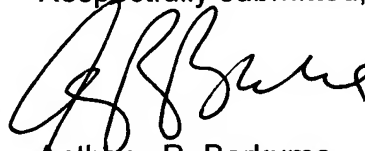
increasing the MOS capacitor area to make sure the driving current enough for the VPP output. But, increasing the area of the MOS capacitor will also increase extra manufacture cost.” (page 1, line 24 – 27). The invention by Selcuk et al. didn’t have the method to solve the problem which is described above. But, in the present invention, the applicant do not adopt to add at least one MOS capacitor 12 (Fig. 1). The applicant replaced the MOS capacitor 12 with a DRAM cell capacitor 21 in Fig. 2. The DRAM cell capacitor 21 is made by the DRAM cell structure and production. In re Nomiya, CCPA 1975, “If the applied prior art does not indicate any awareness of the solved problem, an artisan would not have taken steps to solve the problem.” Therefore, Selcuk et al does not teach the solution of enhancing the capacitor of the pumping circuit and decreasing the manufacture cost.

Thus the combination of the citations, Selcuk et al. and Hiratsuka et al., is not able to provide a memory pumping circuit, which is included a DRAM cell capacitor to replace the MOS transistor, in the prior art. The combination of Selcuk et al and Hiratsuka et al don’t teach the result which is described in the present invention. Therefore, the citations do not teach or suggest all the claim limitations. According to MPEP §2143, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or reference when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant’s disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)

Conclusion

In the light of the above remarks, Applicant respectfully submits those pending Claims 1-13 as currently presented are in condition for allowance. Applicant has thoroughly reviewed that art cited but relied upon by the Examiner. Applicant has concluded that this cited reference do not affect the patentability of these claims as currently presented. Accordingly, reconsideration is respectfully requested.

Respectfully submitted,



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